



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

#19 Brief  
Reply  
7/9/03  
J. M. Sullivan

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In re application of

WILLIAM P. STEARNS ET AL.

Serial No. 09/678,318 (TI-25833.1)

Filed October 3, 2000

For: OPTIMIZED CIRCUIT DESIGN LAYOUT FOR HIGH  
PERFORMANCE BALL GRID ARRAY PACKAGES

Art Unit 2815

Examiner P. Brock, II

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**REPLY BRIEF**

In reply to the Examiner's Answer, in addition to the arguments presented in the Brief on Appeal, which are incorporated herein by reference, it is again noted that claims 1, 2, 20 and 21 were rejected under 35 U.S.C. 102(a) as being anticipated by Ohsawa (U.S. 2001/0014491 A1). In order for there to be anticipation, each and every step of the claim and the function performed by each step must be found in the reference. Clearly, this is not the case.

Claim 1 requires the step of "providing a plurality of pairs of traces on said surface, each trace of each of said pairs of traces extending to a different one of said ball pads and extending to ball pads on a plurality of said rows and columns, each trace of each of said

pair of traces being spaced from the other trace of said pair by up to a ball pitch, being maximized for identity in length and having up to one ball pitch difference in length and being maximized for parallelism and spacing". Clearly, nowhere in Ohsawa are there pairs of traces with the traces of each pair of traces spaced from each other by up to a ball pitch. In addition, nowhere in Ohsawa are the traces of a pair maximized for length identity with a length difference of up to one ball pitch. It follows that claim 1 defines patentably over Ohsawa under 35 U.S.C. 102(a).

Claims 2, 20 and 21 depend from claim 1 and therefore define patentably over Ohsawa for at least the reasons set forth above with reference to claim 1.

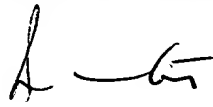
The Examiner's Answer states that "Ohsawa discloses in figure 3j providing a plurality of pairs of traces on the surface, each trace of each of the pairs of traces extending to a different one of the ball pads and extending to ball pads on a plurality of rows and columns, each trace of each of the pair of traces being spaced from the other trace of the pair by up to a ball pitch, being maximized for identity in length and having up to one ball pitch difference in length and being maximized for parallelism and spacing". The Examiner's Answer nowhere references any portion of the specification of Ohsawa which teaches that which is alleged to be contained in Ohsawa and the undersigned has been unable to locate any such discussion in Ohsawa. The source of the allegation of the showing in Ohsawa is therefore not apparent.

All of the remaining claims on appeal depend from claim 1. Accordingly, claims 3, 4, 22 and 23 which were rejected as being unpatentable over Ohsawa under 35 U.S.C. 103(a) define patentably over Ohsawa for at least the reasons set forth above with reference to claim 1 and claims 5 to 8 and 24 to 27 which were rejected as being unpatentable over

Ohsawa in view of Karnezos under 35 U.S.C. 103(a) define patentably over Ohsawa for at least the reasons set forth above with reference to claim 1 since Karnezos fails to overcome the deficiencies in Ohsawa as noted above.

For the reasons stated above as well as for the reasons stated in the Brief on Appeal with reference to all of the appealed claims, reversal of the rejected claims is urged that justice be done in the premises.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Jay M. Cantor', with a stylized flourish at the end.

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